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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,532	08/27/2003	Stuart L. Schreiber	2001180-0077	7136
24280	7590	07/05/2005	EXAMINER	
CHOATE, HALL & STEWART LLP			SOLOLA, TAOFIQ A	
EXCHANGE PLACE			ART UNIT	
53 STATE STREET			PAPER NUMBER	
BOSTON, MA 02109			1626	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/649,532

Applicant(s)

SCHREIBER ET AL.

Examiner

Taofiq A. Solola

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-30 and 35-39 is/are pending in the application.
- 4a) Of the above claim(s) 18-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-16, 23-30 and 35-39 is/are rejected.
- 7) ☐ Claim(s) 17 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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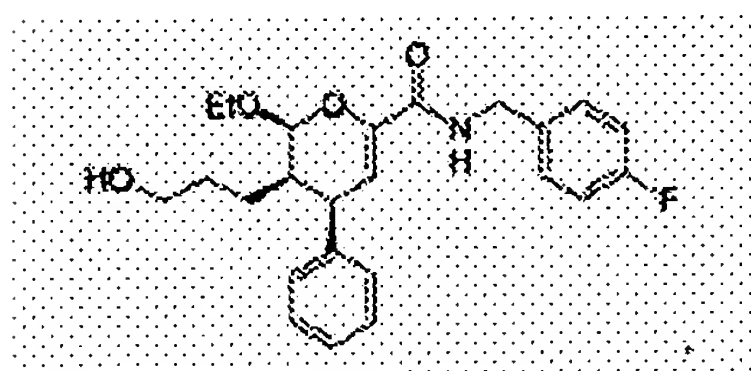
Claims 1-30, 35-39 are pending in this application.

Claims 31-34 are cancelled.

### ***RESTRICTION REQUIREMENT***

Applicant's election of group I, claims 1-30, without traverse in the Paper filed 6/13/05 is hereby acknowledged. The restriction of claims 35-39 is now withdrawn. The claims are now rejoined with the elected invention.

In selecting the invention of group I, applicant also elects the following species:



### ***Status of Claims***

The Office has reviewed the claims and disclosure to determine the scope of the independent invention encompassing the elected compound (compounds which are so similar thereto as to be within the same inventive concept and reduction to practice). The scope of an independent invention encompasses all compounds within the scope of the claims, which fall into the same class and subclass as the elected compound, but may include additional compounds, which fall in related subclasses. Examination of the elected compound AND the entire scope of the invention encompassing the elected compound as defined by common classification results in the following:

In formula I, R3 is phenyl which may be substituted or form polycyclic rings, limited to those defined in the claims. R1-R2, R4-R6 are as defined in claim 1. As a result of the election and the corresponding scope of the invention identified herein, the remaining subject matter of claims 1-30, 35-39 are withdrawn from further consideration by the Examiner, under 37 CFR §

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1.142(b), as being drawn to a non-elected subject matter. The withdrawn compounds are patentably distinct from the examined invention as they differ in structure and element and would require a separate search. In addition, a reference, which anticipates the examined invention, would not render obvious the non-examined subject matter.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 35-39 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification lacks adequate support for the claims. For example, the specification fails to show evidence of diseases that can be treated by inhibition of kinesin activity or kinesin Eg5. The inhibitions are not in and of themselves utilities. By deleting the claims the rejection would be overcome.

Claim 39 recites "an additional therapeutic agent." There is no support in the specification that the instant compounds can be administered with any therapeutic agent. For example, can it be administered to a diabetic patient with a diabetic agent? If applicant intends to claim cocktail administration of the compounds, it should be administered with therapeutic agents useful for treating proliferative disorder or lung cancer not any therapeutic agent.

Claim 38 recites treating a cancer. There is support in the specification for inhibition of genistein, a broad tyrosine kinase inhibitor. There is no evidence that genistein inhibition relates

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to all forms of cancer. Applicant's reliance on T. Akiyama et al., J. Biol. Chem. 262 (1987) 5592-5595, as evidence by incorporation is not according to the requirement of the MPEP. Applicant fails to specify what types of cancer(s) are discussed in the journal. By limiting the claim to lung cancer the rejection would be overcome.

Claims 35-39 rely on many patent applications for support, which along with several journals such as, T. Akiyama et al., *supra*, are not incorporated in accordance with the MPEP which states as follows:

A mere reference to another application, publication or patent is not an incorporation of anything therein into the application containing such reference for the purpose of satisfying the requirement of 35 USC 112, first paragraph. *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). Particular attention should be directed to the subject matter and the specific portions of the referenced document where the subject matter being incorporated may be found. MPEP 608.01(p).

If the document is a pending US application: prior to allowance of an application that incorporates essential material by reference to a pending US application, if the referenced application has not been published or issued as a patent, applicant is required to amend the disclosure of the referencing application to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating the amendment consists of the same material incorporated by reference in the referencing application. MPEP 608.01(p).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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Claims 1-30, 35-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For reasons set forth above under 35 USC 112, first paragraph, claims 35-39 are indefinite.

Claim 1 recite the definition of R7 on line 6 but there is no R7 in formula I. Claim 2 recites R5 on line 5, while there is no R5 in formula II. Therefore, claims 1-14, 23-30, 35-39 are indefinite.

Claims 24-25 are improperly depend from claim 23 for failure to limit the scope of claim 23. Claims 23-25 are drawn to the same collection of compounds while claims 24-25 recite the compounds are in array format. Characterization such as, arrangement, function, or utility is not a limitation of a compound or product, and the compounds are the same in the claims. For example, see *In re Best* 562 F.2d 1252, 1254; 195 USPQ 430 (CCPA, 1977). Therefore, claims 24-25 are duplicates of 23 and must be deleted.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-16, 23-29 are rejected under 35 U.S.C. 102(a) as being anticipated by Blackwell et al., Angew. Chem. Int. Ed. (2001) Vol. 40, No. 18, pages 3421-3425.

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Blackwell et al., disclose combinatorial library of compounds in the attached abstract.

Claims 1-14, 23-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Clemons et al., Chem. & Biol. (2001) Vol. 8, No. 12, pages 1183-1195.

Clemons et al., disclose composition of library of compounds in the attached abstract.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackwell et al., Angew. Chem. Int. Ed. (2001) Vol. 40, No. 18, pages 3421-3425.

Applicant claims a collection of compounds of claim 1. In preferred embodiments the compounds are two or more, at least 100, 1000, 2000 or 10,000. The compounds are arranged in array format on a glass.

#### **Determination of the scope and content of the prior art (MPEP 2141.01)**

Blackwell et al., teach combinatorial library of compounds in the attached abstract.

#### **Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)**

The difference between the instant invention and that of Blackwell et al., is that applicant claims the compounds are two or more, at least 100, 1000, 2000 or 10,000. The compounds are arranged in array format on a glass while Blackwell et al., do not teach specific minimum number of the compounds.



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*Finding of prima facie obviousness---rational and motivation (MPEP §2142.2413)*

However, applicant merely stated the minimum not the maximum and the maximum could have been the same as that of Blackwell et al. Even then, specifying the number of compounds in a collection/library and arranging them in array format are not patentable significant, and are not patentable over the prior art of Blackwell et al. Therefore, the instant invention is prima facie obvious from the teaching of Blackwell et al. One of ordinary skill in the art would have known to claim the minimum number of compounds in a library at the time this invention was made. The motivation is from the teaching of Blackwell et al., that the compounds are a collection.

Claims 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clemons et al., Chem. & Biol. (2001) Vol. 8, No. 12, pages 1183-1195.

Applicant claims a collection of compounds of claim 1. In preferred embodiments the compounds are two or more, at least 100, 1000, 2000 or 10,000. The compounds are arranged in array format on a glass.

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### ***Allowable Subject Matter***

Claims 17 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 18-21 are being withdrawn and should be cancelled. See Status of Claims, *supra*. In addition to overcoming the prior arts, claims 1-14, 23-30 should be amended within the scope of allowable subject matter as stated under Status of Claims, *supra*.

### ***Drawing***

Figures 23-25 filed 8/27/03 are objected to because the legends are hand-written. New figures with printed legends must be submitted.

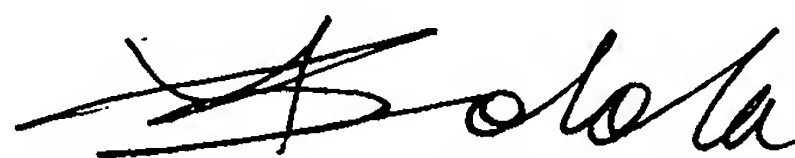
### ***Telephone Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taofiq A. Solola, PhD, JD, whose telephone number is (571) 272-0709.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

A handwritten signature in black ink, appearing to read 'Taofiq Solola', with a stylized flourish at the end.

**TAOFIQ SOLOLA**  
**PRIMARY EXAMINER**  
Group 1626

June 30, 2005